

## Abstract

A steer-by-wire system for an automotive vehicle comprises a driver interface system that includes a steering wheel mounted on a steering column. A reaction torque generator is coupled to the steering column for applying a resistive torque in response to a steering command to create a steering feel. An electromechanical brake, such as a magnetorehological brake, is also coupled to the steering column. During operation, a controller receives an input signal indicative of road wheel response to a steering command and determines when the road wheels have reached a limit, such as by engaging mechanical stops mounted on the vehicle or prevented from movement by curb or other external obstacle. In response, the controller actuates the electromechanical device to prevent rotation of the steering wheel and thereby alert the driver that the road wheels have reached a limit.